

### **Listing of Claims**

1. (Canceled)

2. (Currently amended) A substantially purified salivary *P. ariasi* polypeptide~~The~~  
~~polypeptide of claim 1,~~ wherein the polypeptide comprises:

a) an amino acid sequence at least ~~80~~95% identical to an amino acid sequence set forth as SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:27, SEQ ID NO:29, SEQ ID NO:31, SEQ ID NO:33, SEQ ID NO:35, SEQ ID NO:37, SEQ ID NO:39, SEQ ID NO:41, SEQ ID NO:43, SEQ ID NO:45, or SEQ ID NO:47; SEQ ID NO: 11;

b) a conservative variant of the amino acid sequence set forth ~~in part (a)~~ as SEQ ID NO: 11[[.]];

c) an immunogenic fragment comprising at least fifteen consecutive amino acids of the amino acid sequence set forth ~~in part (a)~~ as SEQ ID NO: 11, that specifically binds to an antibody that specifically binds the amino acid sequence set forth ~~in part (a), respectively~~ as SEQ ID NO: 11; or

d) the amino acid sequence set forth ~~in part (a)~~ as SEQ ID NO: 11,  
wherein administration of the polypeptide to a subject produces an immune response to *P. ariasi*.

3. (Currently amended) A substantially purified salivary *P. ariasi* polypeptide~~The *P. ariasi* polypeptide of claim 2,~~ wherein the polypeptide comprises an amino acid sequence as set forth as SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:27, SEQ ID NO:29, SEQ ID NO:31, SEQ ID NO:33, SEQ ID NO:35, SEQ ID NO:37, SEQ ID NO:39, SEQ ID NO:41, SEQ ID NO:43, SEQ ID NO:45, or SEQ ID NO:47; SEQ ID NO: 11, or a conservative variant thereof, wherein administration of the polypeptide to a subject produces an immune response to *P. ariasi*.

4. (Currently amended) The *P. ariasi* polypeptide of claim 3, wherein the polypeptide comprises an amino acid sequence set forth as SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5,

~~SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:17,  
SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:27, SEQ ID  
NO:29, SEQ ID NO:31, SEQ ID NO:33, SEQ ID NO:35, SEQ ID NO:37, SEQ ID NO:39, SEQ  
ID NO:41, SEQ ID NO:43, SEQ ID NO:45, or SEQ ID NO:47.~~

5. (Original) An antigenic fragment of the polypeptide of claim 4.

6. (Currently amended) The polypeptide of claim [[1]]~~2~~, wherein the polypeptide comprises an amino acid sequence at least ~~80~~98% identical to an amino acid sequence set forth as SEQ ID NO:11,~~SEQ ID NO:19, SEQ ID NO:35, or SEQ ID NO:39.~~

7 - 24. (Canceled)

25. (Currently amended) A pharmaceutical composition comprising a therapeutically effective amount of the polypeptide of claim [[1]]~~2~~ and a pharmaceutically acceptable carrier.

26. (Canceled)

27. (Withdrawn and currently amended) A method for inducing an immune response to a *P. ariasi* polypeptide in a subject, comprising:  
administering to the subject a therapeutically effective amount of the *P. ariasi* polypeptide of claim [[1]]~~2~~, or a polynucleotide encoding the *P. ariasi* polypeptide, thereby inducing the immune response.

28. (Withdrawn) The method of claim 27, wherein the immune response comprises a T cell response.

29. (Withdrawn) The method of claim 27, wherein the immune response comprises a B cell response.

30. (Withdrawn) The method of claim 27, wherein the subject comprises a non-human veterinary subject.

31. (Withdrawn) The method of claim 27, wherein the subject is a dog.

32. (Withdrawn) The method of claim 27, wherein the subject is a human.

33. (Withdrawn and currently amended) The method of claim 27, wherein the polypeptide comprises an amino acid sequence at least ~~80~~95% identical to a the amino acid sequence set forth as SEQ ID NO: 11, ~~SEQ ID NO: 19, SEQ ID NO: 35, or SEQ ID NO: 39.~~

34. (Canceled)

35. (Withdrawn and currently amended) A method for inhibiting a symptom of a *Leishmania* infection or preventing a *Leishmania* infection in a subject, comprising administering to the subject a therapeutically effective amount of the *P. ariasi* polypeptide of claim [[1]]2, or a polynucleotide encoding the *P. ariasi* polypeptide ~~of claim 1~~, thereby inhibiting the symptom of the *Leishmania* infection or preventing the *Leishmania* infection.

36. (Withdrawn and currently amended) The method of claim 35, wherein the polypeptide comprises an amino acid sequence at least ~~80~~95% identical to a the amino acid sequence set forth as SEQ ID NO: 11, ~~SEQ ID NO: 19, SEQ ID NO: 35, or SEQ ID NO: 39.~~

37 - 76. (Canceled)

77. (New) The polypeptide of claim 6, wherein the polypeptide comprises an amino acid sequence at least 99% identical to an amino acid sequence set forth as SEQ ID NO: 11.

78. (New) The polypeptide of claim 77, wherein the polypeptide comprises an amino acid sequence set forth as SEQ ID NO: 11.

79. (New) The polypeptide of claim 78, wherein the polypeptide consists of the amino acid sequence set forth as SEQ ID NO: 11.

80. (New) The polypeptide of claim 4, wherein the polypeptide consists of an amino acid sequence set forth as SEQ ID NO: 11.

81. (New) A pharmaceutical composition comprising a therapeutically effective amount of the polypeptide of claim 3 and a pharmaceutically acceptable carrier.

82. (New) A method for inducing an immune response to a *P. ariasi* polypeptide in a subject, comprising  
administering to the subject a therapeutically effective amount of the *P. ariasi* polypeptide of claim 3, or a polynucleotide encoding the *P. ariasi* polypeptide, thereby inducing the immune response.

83. (New) The method of claim 82, wherein the immune response comprises a T cell response.

84. (New) The method of claim 82, wherein the immune response comprises a B cell response.

85. (New) The method of claim 82, wherein the subject comprises a non-human veterinary subject.

86. (New) The method of claim 82, wherein the subject is a dog.

87. (New) The method of claim 82, wherein the subject is a human.

88. (New) A method for inhibiting a symptom of a *Leishmania* infection or preventing a *Leishmania* infection in a subject, comprising administering to the subject a therapeutically

effective amount of the *P. ariasi* polypeptide of claim 3, or a polynucleotide encoding the *P. ariasi* polypeptide, thereby inhibiting the symptom of the *Leishmania* infection or preventing the *Leishmania* infection.

89. (New) The method of claim 88, wherein the polypeptide comprises an amino acid sequence at least 95% identical to a the amino acid sequence set forth as SEQ ID NO: 11.